

REMARKS

Receipt of the final rejection mailed March 26, 2003 is acknowledged. Claims 1-13 are pending in the application and have been rejected, new claim 14 is hereby added. Applicant is filing a Notice of Appeal concurrently herewith and is filing the present amendment in order to place the claims in better form for appeal. In keeping with the foregoing amendment and the following argument, reconsideration of the rejected claims and allowance of the newly submitted claim is respectfully requested.

The language giving rise to the rejection of claim 13 under 35 U.S.C. § 112(2) has been corrected. Accordingly, claim 13 is now in proper form.

Applicant respectfully points out that the foregoing amendments to the claims were not presented earlier for good and sufficient reason. In the final rejection the Examiner was more explicit in his reasoning with regard to the aspects of the flow characteristics of the first and second control valves. This more explicit reasoning has made it apparent to the Applicant that the Applicant may have failed to clearly articulate certain elements/limitations, and/or that the Examiner may have misunderstood those aspects of the references that teach away from the claimed invention. These aspect have now been corrected. Moreover, new claim 14, which is similar but not identical to the claim discussed by the undersigned and the Examiner, more particularly recites features sufficient to define over the art and only was made possible after the Applicant gained additional insights in discussions with the Examiner. Therefore, the present after-final amendment should be entered in its entirety.

In response to the rejection of claim 1 as being obvious over Bauer in view of Drake and Marchi, Applicant has amended claim 1 to positively recite, in part, the following:

1) a first control valve movable between a first position permitting flow only from the hydraulic accumulator toward the first chamber, and a second position permitting flow in two directions;

2) a second control valve movable between a first position preventing flow in both directions and a second position permitting flow in both directions;

3) a check valve between the first chamber and the selection valve means having a first component arranged to prevent fluid flow from the first chamber to the selection valve yet permitting fluid to pass from the selection valve to the first chamber, and having a second component arranged to prevent the passage of hydraulic fluid in both directions, with the second component responsive to hydraulic fluid pressure increases in the second chamber to open the check valve to permit fluid flow from the first chamber to the selection valve means when the second chamber is pressurized; and

4) a ride improvement means activated by shifting the first and second control valves to their respective second positions such that hydraulic fluid is routed to and from the accumulator or the low pressure region in response to pressure changes in cylinder, with the loader arm operable when the ride improvement means is activated.

By comparison, Bauer, at Fig. 20, merely discloses a pair of loader arm cylinders 25, 26, which may be operated using the valve 80. There are a pair of check valves 250, 251 in the auxiliary circuit operated by the spool 83, which valves allow fluid to pass, for example, from line 211 via either of the checks 250/251, to line 246 or 247, respectively. Also, fluid may flow from lines 246 or 247 toward line 211 via the pilot relief valves 248 or 249. Neither one of the loader arm circuit or the auxiliary circuit teaches or even suggests the claimed first and second control valves, and their respective flow characteristics as now distinctly claimed by amended claim 1. Further, there is no teaching or suggestion of how the claimed first and second control valves relate to the accumulator and/or the low pressure region, respectively.

More importantly, the Bauer reference actually teaches away from the claimed invention, through the provision of the position 80c of the lift spool 80, which "connects conduits 230 and 231, with no drain through conduit 235, to mid-inlet spool 81 to thereby allow free movement of loader arms 21." Col. 13, lines 14-18. This allows for "free float" of the loader arm when the bucket is moved over an "irregular surface." Col. 13, lines 20-24. Such a "free float" arrangement, which allows free movement of the loader arm in response to encountering ground irregularities, plainly teaches directly away from the invention of claim 1 which particularly recites that the ride improvement means routes fluid to and from the accumulator and/or the low pressure region to provide hydraulic damping of arm movement - precisely the opposite of "free float." Therefore, the reference teaches directly away from the claimed invention. There is no prima facie case of obviousness on this basis alone and the rejection must be withdrawn.

Like Bauer, Marchi also teaches directly away from the invention of claim 1. Marchi includes what is described as a "floating" mode, and the configuration of the system in the "floating" mode is indicated in figure 5. In the "floating" mode of Marchi, the "first and second expansible chambers 24 and 26 are joined in fluid communication with each other, thereby permitting floating of the implement operatively associated with the actuator 18." See col. 6, lines 54-58. The provision of an accumulator and a low pressure region would of course preclude the "floating" mode by actually preventing communication of the two chambers with each other. Further, maintaining the chambers in communication precludes any sort of ride improvement as distinctly claimed by claim 1. Thus, adding an accumulator and/or a low pressure region would substantially change the mode of operation of the reference, and thus there simply would be no suggestion to make such extensive changes. Once again, there can be no prima facie case of obviousness.

Moreover, Marchi offers nothing in the way of teaching or even suggesting the distinctly claimed flow characteristics of the claimed first and second control valves as a function of their positions. Moreover, even if one were to consider the check valve 40 and the pilot relief valve 42 as a single unit, then Marchi plainly lacks the second control valve as claimed. If elements/limitations are missing from the combination, there cannot be a prima facie case of obviousness and the rejection must be withdrawn.

Finally, the Drake reference adds nothing. Although Drake teaches a ride improvement system, any attempt to combine Drake with either Bauer or Marchi would render inoperable the "free float" and "floating" modes, respectively, of those references. Further, like Bauer and Marchi, Drake wholly fails to even suggest the flow characteristics of the first and second control valves, which characteristics also happen to be missing entirely from the other references.

More importantly, Drake teaches directly away from the invention of claim 1. In claim 1 of the reference, it states that when the "shock absorbing means" is actuated, "the shock absorbing means is operatively disconnected from the hydraulic motor means thus blocking fluid flow in the conduits . . ." Col. 10, lines 20-24. Compare present claim 1, which plainly recites that loader arm is operable even when the ride improvement means is activated. With Drake, operation of the arm is expressly precluded in claim 1 of the reference. Again, the reference teaches away from the claimed invention and the rejection must be withdrawn.

Claims 2-6 depend from claim 1, either directly or via intervening claims. Accordingly, claims 2-6 are also in allowable form.

Independent claims 7, 10 and 14 are also in allowable form for the reasons outlined above with respect to claim 1. There simply would be no suggestion to ignore those

aspects of the references that teach directly away from what is claimed in claims 7, 10 and 14, and thus there would be no proper way to make the proposed combination. Moreover, the elements/limitations relating to the control valves, their particular flow characteristics relative to their positions, and the ride improving mode along with the flow characteristics of the ride improving mode, simply are not disclosed or suggested by the combination. Accordingly, claims 7, 10 and 14, and the claims dependent thereon, are in allowable form.

In view of the foregoing the above-identified application is in condition for allowance. In the event there is any remaining issue that the Examiner believes can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned attorney at (312) 474-6612.

Respectfully submitted,

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